

Q/C Box Electrical/Readout Setup

This page contains the ITk Inner Pixel Ring/Stave testing Q/C box electrical and readout configurations.

ITk Pixel Electrical Service General Documentation

- Modules: [Module Q/C Portal](#), [ITk Pixel Module Twiki](#)
- [On-Detector service FDR](#)
- [ITk Pixel Service Specification document \(AT2-IP-EP-0007\)](#)
- [ITk Pixel connectivity spreadsheet for electrical services \(AT2-IP-ES-0016\)](#)
- [Pixel Inner System Electrical Service Summary](#)
- [MOPS FDR/PRR](#)

B33 Q/C Box/Integration Setup Information

- Q/C box infrastructure: [CO2 cooling plant](#), [Q/C box operations](#)
- DAQ Readout Systems: [Link Aggregator](#), [RCE](#), [YARR](#), [FELIX](#), [Optobox](#)
- Online infrastructure: [ITk DAQ network](#), [DCS monitoring](#), [Interlock](#)
- Electrical designs:
 - [OSU Altium design repository](#) (All IS electronics design. Ask Steven Welch for access.)
 - Confluence TID electronics design repo: [Data Transmission](#), [DAQ readout](#), [PCB ID/fab list](#)
 - [Lessons learned in 19-x designs](#)
- [B33 Setup GoogleSheets](#) (System Test setup tasks, Rack plan...)

Q/C Box Electrical Service/Readout Setup

- 19-2 RD53A Coupled Ring Prototype
 - [RD53A Coupled Ring powering setup](#)
 - [RD53A Ring electrical connectivity map](#)
 - [RD53A Ring PP0 DP readout map](#)
 - [RD53A Ring chip to lane map](#)
 - [DCS monitoring configuration](#)
- 19-2 RD53A L1, L0 Stave Prototypes
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Checklist for QC Box Testing

- [check list](#) (log the relative information also in the checklist while testing)

Testing results

- [Digital scan results](#)
- [Test result for R0/1 ring](#)
- [Test result for L1 stave](#)

Additional notes

- [Quad module positions on the loaded ring](#)
- [Quad flex tests](#)
- [Triplet module positions on the loaded ring](#)
- [Triplet flex tests](#)
- [Ring readout Benfei DP cable tests](#)
- [Barrel readout QCEs 8K 10ft miniDP-DP cable tests](#)